volume of the file system to be extended resides, and increasing a size of that file system and the logical volume.

Dynamically Enabling SAN Manager

Further aspects of the invention provide a storage area network as described above having one or more digital data processors, e.g., hosts, in communication with one or more storage devices, e.g., LUNs. At least a selected one of the hosts has an operating system in which a storage device must be claimed (or mounted), e.g., via port driver and class driver components as discussed earlier or via analogous functionality in other operating systems, before the storage device can be accessed by applications programs executing on that host. The improvement is characterized by a selectively actuable filter, e.g., loaded with the selected host operating system, that -- when actuated -- intervenes to block claiming (or mounting) of one or more selected storage devices.

In further aspects, the invention provides a store that maintains a flag or other indicator, referred to elsewhere herein as an "enable" or "fully enabled" indicator. The aforementioned filter is responsive to that indicator for selectively intervening to block claiming (or mounting) of storage devices. According to more particular aspects of the invention, the filter, when actuated, intervenes to block claiming (or mounting) of one or more selected storage devices by the selected host operating system class driver.

A graphical user interface element is provided, according to other aspects of the invention, for setting the value of the enable indicator. The interface is responsive, for example, to operator/administrator input (e.g., selection of buttons on a console) for determining that setting, e.g., enabled or disabled.

Still further aspects of the invention provide a SAN as described above comprising a manager digital data processor that is coupled to at least the selected host digital data processor. The manager responds to operator/administrator input for transmitting software comprising a filter to the selected host.

According to related aspects of the invention, the manager digital data processor provides for assignment of storage devices to the selected and other host digital data processors. Each of the storage devices, according to this aspect of the invention, is associated with one or more logical unit numbers (LUNs). The manager transmits LUNs to the filter to effect assignment of the associated storage device(s) to the selected host digital data processor. The filter, in turn, according to this aspect of the invention, blocks claiming (or mounting) of SAN-class (e.g., fiber channel) storage devices other than those associated with the LUNs transmitted to the filter.

Further aspects of the invention provide a SAN as described above in which the manager digital data processor includes a graphical user interface that sets a value of a further indicator, referred to elsewhere herein as an "assignment enable" indicator, in the store to permit the operator/administrator to make assignments.

Launching Device Specific Applications

The invention provides, in still further aspects, a storage area network (SAN) of the type described above having a plurality of components including one or more digital data processors in communication with one or more storage devices via a switching fabric. An interface process, e.g., resident on a manager digital data processor, permits the operator/administrator to effect execution of at least a process residing on the manager and at least one process residing on another SAN component. The latter process can be, for example, an applications program for management of the respective component.

In another aspect, the invention provides a SAN as described above in which the interface process effects a topological or other display of one or more graphical objects, each representing one of the SAN components, on the graphical output device. The interface process responds to operator/administrator selection of one of these graphical objects by depicting application processes, if any, residing on that SAN component. Execution of those processes can be effected by selection of those depicted processes.

The invention provides, in still further aspects, a SAN as described above in which the interface process responds to the selection of a graphical object representing a SAN component by accessing a store (e.g., maintained by the manager) identifying application processes, if any, associated with each component. When the operator/administrator selects a component application for execution, the interface process retrieves requisite parameters, e.g., command